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PHILOSOPHICAL
TRANSACTIONS,

OF THE
ROYAL SOCIETY
OF
LONDON.

FOR THE YEAR MDCCXCIV.

PART I.

LONDON,

SOLD BY PETER ELMSLY,
PRINTER TO THE ROYAL SOCIETY.
MDCCXCIV.

ADVERTISEMENT.

THE Committee appointed by the *Royal Society* to direct the publication of the *Philosophical Transactions*, take this opportunity to acquaint the Public, that it fully appears, as well from the council-books and journals of the Society, as from repeated declarations which have been made in several former *Transactions*, that the printing of them was always, from time to time, the single act of the respective Secretaries, till the Forty-seventh Volume: the Society, as a Body, never interesting themselves any further in their publication, than by occasionally recommending the revival of them to some of their Secretaries, when, from the particular circumstances of their affairs, the *Transactions* had happened for any length of time to be intermitted. And this seems principally to have been done with a view to satisfy the Public, that their usual meetings were then continued, for the improvement of knowledge; and benefit of mankind, the great ends of their first institution by the Royal Charters, and which they have ever since steadily pursued.

But the Society being of late years greatly enlarged, and their communications more numerous, it was thought advisable, that a Committee of their members should be appointed to reconsider the papers read before them, and select out of them such as they should judge most proper for publication in the future *Transactions*; which was accordingly done upon the 26th of March, 1752. And the grounds

of their choice are, and will continue to be, the importance and singularity of the subjects, or the advantageous manner of treating them; without pretending to answer for the certainty of the facts, or propriety of the reasonings, contained in the several papers so published, which must still rest on the credit or judgment of their respective authors.

It is likewise necessary on this occasion to remark, that it is an established rule of the Society, to which they will always adhere, never to give their opinion, as a Body, upon any subject, either of Nature or Art, that comes before them. And therefore the thanks, which are frequently proposed from the Chair to be given to the authors of such papers as are read at their accustomed meetings, or to the persons through whose hands they receive them, are to be considered in no other light than as a matter of civility, in return for the respect shewn to the Society by those communications. The like also is to be said with regard to the several projects, inventions, and curiosities of various kinds, which are often exhibited to the Society; the authors whereof, or those who exhibit them, frequently take the liberty to report, and even to certify in the public news-papers, that they have met with the highest applause and approbation. And therefore it is hoped, that no regard will hereafter be paid to such reports, and public notices; which in some instances have been too lightly credited, to the dishonour of the Society.

CONTENTS.

I. *An Account of the Discovery of a Comet. In a Letter from Miss Caroline Herschel to Joseph Planta, Esq. Sec. R. S.* page 1

II. *Account of a new Pendulum. By George Fordyce, M. D. F. R. S.; being the Bakerian Lecture.* p. 2

III. *Some Facts relative to the late Mr. John Hunter's preparation for the Croonian Lecture. By Everard Home, Esq. F. R. S.* p. 21

IV. *Observations of a quintuple Belt on the Planet Saturn. By William Herschel, LL.D. F. R. S.* p. 28

V. *Observations on the fundamental Property of the Lever; with a Proof of the Principle assumed by Archimedes, in his Demonstration. By the Rev. S. Vince, A. M. F. R. S.* p. 33

VI. *Account of some Particulars observed during the late Eclipse of the Sun. By William Herschel, LL.D. F. R. S.* 39

VII. *The Latitudes and Longitudes of several Places in Denmark; calculated from the Trigonometrical Operations. By Thomas Bugge, F. R. S. Regius Professor of Astronomy at Copenhagen.* p. 43

VIII. *On the Rotation of the Planet Saturn upon its Axis. By William Herschel, LL.D. F. R. S.* p. 48

IX. *An Account of a Method of measuring the comparative Intensities of the Light emitted by luminous Bodies.* By Lieutenant-General Sir Benjamin Thompson, Count of Rumford, F. R. S. In two Letters to Sir Joseph Banks, Bart. P. R. S. p. 67

X. *An Account of some Experiments upon coloured Shadows.* By Lieutenant-General Sir Benjamin Thompson, Count of Rumford, F. R. S. In a Letter to Sir Joseph Banks, Bart. P. R. S. p. 107

XI. *Investigations, founded on the Theory of Motion, for determining the Times of Vibration of Watch Balances.* By George Atwood, Esq. F. R. S. p. 119

APPENDIX.

Meteorological Journal kept at the Apartments of the Royal Society, by Order of the President and Council.

ERRATA.

Page 14, line 17, for XY, read XI.

Page 151, line 4, for remaining semiarc, read remaining part of the semiarc.

Page 153, note, line 6 from the bottom, for 91, read 87.

Ibid. note, line 4 from the bottom, for 5, read 9.

Page 167, line 14, for so adjusted, read adjusted so.

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CONTENTS.

XII. *On the Conversion of Animal Muscle into a Substance much resembling Spermaceti.* By George Smith Gibbes, *B. A.* of *Magdalen College, Oxford.* *Communicated by George Shaw, M. D. F. R. S.* p. 169

XIII. *Abstract of a Register of the Barometer, Thermometer, and Rain, at Lyndon, in Rutland, 1793.* By Thomas Barker, *Esq.* *Communicated by Sir Joseph Banks, Bart. P. R. S.* p. 174

XIV. *Observations on some Egyptian Mummies opened in London.* By John Frederick Blumenbach, *M. D. F. R. S.* *Addressed to Sir Joseph Banks, Bart. P. R. S.* p. 177

XV. *Observations on Vision.* By David Hosack, *M. D.* *Communicated by George Pearson, M. D. F. R. S.* p. 196

XVI. *Dr. Halley's Quadrature of the Circle improved: being a Transformation of his Series for that purpose to others which converge by the Powers of 80.* By the Rev. John Hellins, *Vicar of Potter's Pury, in Northamptonshire.* *Communicated by Nevil Maskelyne, D. D. F. R. S. and Astronomer Royal.* p. 217

XVII. *On the Method of determining, from the real Probabilities of Life, the Values of contingent Reversions, in which Three Lives are involved in the Survivorship.* By William Morgan, *Esq. F. R. S.* p. 223.

XVIII. *Observation of the great Eclipse of the Sun of Sept. 5, 1793.* By John Jerome Schroeter, Esq. Communicated by George Best, Esq. F. R. S. p. 262

XIX. *Experiments and Observations made with the Doubler of Electricity, with a view to determine its real Utility, in the investigation of the Electricity of atmospheric Air, in different degrees of Purity.* By Mr. John Read. Communicated by Richard Henry Alexander Bennet, Esq. F. R. S. p. 266

XX. *Tables for reducing the Quantities by Weight, in any Mixture of pure Spirit and Water, to those by Measure; and for determining the Proportion, by Measure, of each of the two Substances in such Mixtures.* By Mr. George Gilpin, Clerk to the Royal Society. Communicated by Sir Charles Blagden, Knt. Sec. R. S. p. 275

XXI. *Observations and Experiments on a Wax-like Substance, resembling the Pé-la of the Chinese, collected at Madras by Dr. Anderson, and called by him White Lac.* By George Pearson, M. D. F. R. S. p. 383

XXII. *Account of some remarkable Caves in the Principality of Bayreuth, and of the fossil Bones found therein.* Extracted from a Paper sent, with Specimens of the Bones, as a Present to the Royal Society, by his most Serene Highness the Margrave of Anspach, &c. p. 402

XXIII. *Observations on the fossil Bones presented to the Royal Society by his most Serene Highness the Margrave of Anspach, &c.* By the late John Hunter, Esq. F. R. S. Communicated by Everard Home, Esq. F. R. S. p. 407.

XXIV. *Account of a mineral Substance, called Strontionite, in which are exhibited its external, physical, and chemical Characters.* By Mr. John Godfrey Schmeisser, F. R. S. p. 418

XXV. *Account of a spontaneous Inflammation. By Isaac Hum-
fries, Esq. In a Letter from Thomas B. Woodman, Esq. to
George Atwood, Esq. F. R. S.* p. 426

XXVI. *An Account of an Appearance of Light, like a Star, seen
in the dark Part of the Moon, on Friday the 7th of March,
1794, by William Wilkins, Esq. at Norwich. In Extracts of
a Letter to the Rev. Samuel Vince, F. R. S. and of three Let-
ters to the Rev. Nevil Maskelyne, D. D. F. R. S. and Astro-
nomer Royal; and communicated by the latter.* p. 429

XXVII. *An Account of an Appearance of Light, like a Star, seen
lately in the dark Part of the Moon, by Thomas Stretton, in
St. John's Square, Clerkenwell, London; with Remarks upon
this Observation, and Mr. Wilkins's. Drawn up, and com-
municated, by the Rev. Nevil Maskelyne, D. D. F. R. S. and
Astronomer Royal.* p. 435

*Presents received by the Royal Society, from November, 1793,
to July, 1794.* p. 441

Index. p. 445